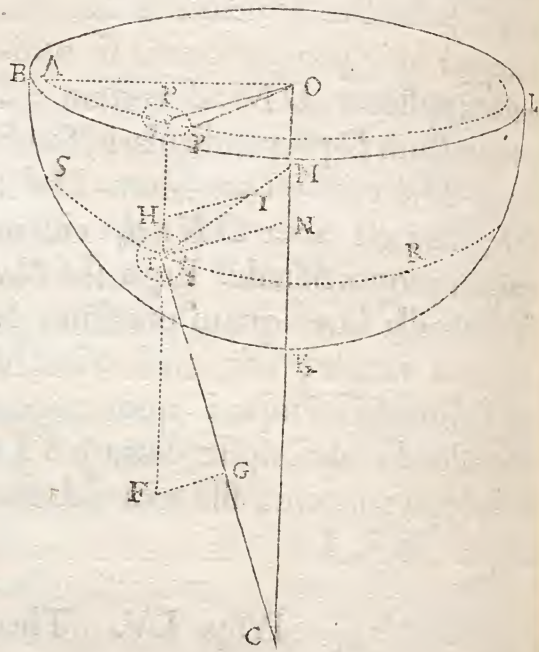


in lineæ volubilis  $OP$  plano  $AOP$  descriptum,  $A$  vestigii initium puncto  $S$  respondens,  $TC$  recta a corpore ad centrum ducta;  $TG$  pars ejus vi centripetæ qua corpus urgetur in centrum  $C$  proportionalis;  $TM$  recta ad superficiem curvam perpendicularis;  $TI$  pars ejus vi pressionis qua corpus urget superficiem, vicissimq; urgetur versus  $M$  a superficie, proportionalis;  $PHTF$  recta axi parallela per corpus transiens, &  $GF$ ,  $IH$  rectæ a punctis  $G$  &  $I$  in parallelam illam  $PHTF$  perpendiculariter demissæ. Dico jam quod area  $AOP$ , radio  $OP$  ab initio motus descripta, sit temporis proportionalis. Nam vis  $TG$  (per Legum Corol. 2.) resolvitur in vires  $TF$ ,  $FG$ ; & vis  $TI$  in vires  $TH$ ,  $HI$ . Vires autem  $TF$ ,  $TH$  agendo secundum lineam  $PF$  plano  $AOP$  perpendicularem mutant solummodo motum corporis quatenus huic plano perpendicularem. Ideoque motus ejus quatenus secundum positionem plani factus, hoc est motus puncti  $P$ , quo Trajectoriæ vestigium  $AP$  in hoc plano describitur, idem est ac si vires  $TF$ ,  $TH$  tollerentur, & corpus solis viribus  $FG$ ,  $HI$  ageretur, hoc est idem ac si corpus in plano  $AOP$  vi centripeta ad centrum  $O$  tendente & summam virium  $FG$  &  $HI$  æquante, describeret curvam  $AP$ . Sed vi tali describeretur area  $AOP$  (per Prop. I.) temporis proportionalis. Q. E. D.

*Corol.* Eodem argumento si corpus a viribus agitatum ad centra duo



duo vel plura in eadem quæberet in spatio libero linearum  $AOP$  temporis semper prop

Prop. LV

*Concessis figurarum curvilinearum centripetæ ad centrum datum axis per centrum illud corpus in eadem superficie citate versus plagam in superio*

Stantibus quæ in superiori corpore de loco  $S$  in Trajectoria ejus velocitate in altitudine quavis altitudine  $TC$ . Ea minimo, describat corpus Trajectoriæ vestigium ejus plano  $AOP$  centro  $T$  intervallo  $Tt$  in figura Ellipticum in eodem tum magnitudine & positione  $PpQ$ . Cumq; area  $POp$  ex dato tempore detur, dabuntur ejus & Ellipseos in quo Trajectoriæ vestigium inveniatur Trajectoriæ vestigia curva linea  $VIKk$  in Proventa fuit. Tum ex singulis  $AOP$  perpendicularia  $P$  dabuntur singula Trajectoria